ELSEVIER

Chemical Physics 237 (1998) 501–505

Chemical Physics

Author index to volume 237

Ågren, H., see Engström, M. 237 (1998) 149
Ågren, H., see Magnuson, M. 237 (1998) 295
Agui, A., see Magnuson, M. 237 (1998) 295
Alikhani, M.E., see Krim, L. 237 (1998) 265
Asada, T., see Watanabe, H. 237 (1998) 81

Bacchus-Montabonel, M.C., Charge transfer recombination of Si^{2+} ions from atomic hydrogen 237 (1998) 245
Bagnich, S.A., Transport kinetics of triplet excitation in solid chrysene 237 (1998) 359
Baltzer, P., L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland, An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule 237 (1998) 451
Bodo, E., E. Buonomo, F.A. Gianturco, S. Kumar, A. Famulari, M. Raimondi and M. Sironi, Interaction anisotropy and quantum dynamics for vibrationally inelastic collisions of $LiH(^1\Sigma)$ with $He(^1S)$ 237 (1998) 315
Bogár, F. and J. Ladik, Correlation corrected energy bands of nucleotide base stacks 237 (1998) 273
Bougeard, D., see Ermoshin, V.A. 237 (1998) 333
Breton, J., see Iglesias-Groth, S. 237 (1998) 285
Broer, R., see de Graaf, C. 237 (1998) 59
Buntinx, G., see Didierjean, C. 237 (1998) 169
Buonomo, E., see Bodo, E. 237 (1998) 315
Bylina, E.J., see Kummer, A.D. 237 (1998) 183

Chaquin, P., see Hallou, A. 237 (1998) 251
Chibisov, A.K. and H. Görner, Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects 237 (1998) 425
Coleman, W.J., see Kummer, A.D. 237 (1998) 183
Consalvo, D., see Storm, V. 237 (1998) 395
Consolati, G., R. Rurali and M. Stefanetti, An experimental test on the distribution of positronium lifetimes in polymers 237 (1998) 493

Decleva, P., see Fronzoni, G. 237 (1998) 21
De Graaf, C., W.A. de Jong, R. Broer and W.C. Nieuwpoort, Theoretical study of the crystal field excitations in CoO 237 (1998) 59
De Jong, W.A., see de Graaf, C. 237 (1998) 59
De Waele, V., see Didierjean, C. 237 (1998) 169
Didierjean, C., V. De Waele, G. Buntinx and O. Poizat, The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis 237 (1998) 169

PII: S0301-0104(98)00346-2

Di Marco, P., see Kalinowski, J. 237 (1998) 233
Dötz, K.H., see Engemann, C. 237 (1998) 471
Dreizler, H., see Storm, V. 237 (1998) 395

Eilmes, A. and P. Petelenz, Model calculations of local exciton levels in the C_{60} fullerene crystals doped with endohedral fullerides $M@C_{60}$ 237 (1998) 67
Eland, J.H.D. and L. Karlsson, Dissociative photoionisation of NO_2 up to 26 eV 237 (1998) 139
Eland, J.H.D., see Baltzer, P. 237 (1998) 451
Engemann, C., J. Hormes, A. Longen and K.H. Dötz, An X-ray absorption near edge spectroscopy (XANES) study on organochromium complexes at the Cr K-edge 237 (1998) 471
Engström, M., B. Minaev, O. Vahtras and H. Ågren, Linear response calculations of electronic *g*-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state 237 (1998) 149
Ermoshin, V.A., A.K. Kazansky, K.S. Smirnov and D. Bougeard, The energy relaxation of Si–H vibration in the H/Si(111) system. Relaxation rate and potential energy surface anharmonicity 237 (1998) 333

Famulari, A., see Bodo, E. 237 (1998) 315
Favaro, G., see Romani, A. 237 (1998) 413
Feng, K., see Xiao, C. 237 (1998) 73
Francisco, J.S., The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical 237 (1998) 1
Fronzoni, G. and P. Decleva, Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl 237 (1998) 21

Garnier, F., see Kalinowski, J. 237 (1998) 233
Gianturco, F.A., see Bodo, E. 237 (1998) 315
Gilliams, B., D. Vandenbroucke and C. Görller-Walrand, Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model 237 (1998) 91
Gingell, J.M., G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel, On the electronic spectroscopy of benzyl alcohol 237 (1998) 443
Girardet, C., see Iglesias-Groth, S. 237 (1998) 285
Gislason, E.A., see Song, J.-B. 237 (1998) 159
Görller-Walrand, C., see Gilliams, B. 237 (1998) 91
Görner, H., see Chibisov, A.K. 237 (1998) 425
Guo, J.-H., see Magnuson, M. 237 (1998) 295

Haarer, D., see Müller, J. 237 (1998) 483
Hallou, A., L. Schriver-Mazzuoli, A. Schriver and P. Chaquin, Matrix photochemistry of nitrosyl chloride. Interconversion of ClNO and ClON species by irradiation and tunneling effect 237 (1998) 251
Hayes, M.A., see Baltzer, P. 237 (1998) 451
Hedstrom, J.F., see Pauls, S.W. 237 (1998) 205
Holland, D.M.P., see Baltzer, P. 237 (1998) 451
Holmlid, L., Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter 237 (1998) 11
Hormes, J., see Engemann, C. 237 (1998) 471

Horsburgh, L.E., see Magnuson, M. 237 (1998) 295
Huang, W., Z. Yu and Y. Zhang, Reactions of solid glycine induced by keV ion irradiation 237 (1998) 223

Iglesias-Groth, S., J. Breton and C. Girardet, Structure of the Van der Waals rare gas–C_{60} exohedral complexes $[(C_{60})(RG)_n;\ n = 1, 2]$ 237 (1998) 285
Ishida, N., see Sato, K. 237 (1998) 195
Iwasaki, A., see Sato, K. 237 (1998) 195

Johansson, N., see Magnuson, M. 237 (1998) 295
Johari, G.P., see Wasylyshyn, D.A. 237 (1998) 345
Johnson, C.K., see Pauls, S.W. 237 (1998) 205
Jursic, B.S., Compete basis set ab initio study of monocomplexation of aluminum with H_2O, NH_3, and HF 237 (1998) 51

Kalinowski, J., W. Stampor, P. Di Marco and F. Garnier, Photogeneration of charge in solid films of α-sexithiophene 237 (1998) 233
Karlsson, L., see Baltzer, P. 237 (1998) 451
Karlsson, L., see Eland, J.H.D. 237 (1998) 139
Kazansky, A.K., see Ermoshin, V.A. 237 (1998) 333
Kharlamov, B.M., see Müller, J. 237 (1998) 483
Khodykin, O.V., see Müller, J. 237 (1998) 483
Kompa, C., see Kummer, A.D. 237 (1998) 183
Korolkov, M.V. and B. Schmidt, Vibrationally state-selective laser pulse control of electronic branching in OH ($X\,^2\Pi/A\,^2\Sigma^+$) photoassociation 237 (1998) 123
Krim, L. and M.E. Alikhani, Infrared spectra and theoretical calculations of HCl complexed with NO 237 (1998) 265
Kumar, S., see Bodo, E. 237 (1998) 315
Kummer, A.D., C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan, Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion 237 (1998) 183
Kurakata, T., see Sato, K. 237 (1998) 195

Ladik, J., see Bogár, F. 237 (1998) 273
Longen, A., see Engemann, C. 237 (1998) 471
Lossau, H., see Kummer, A.D. 237 (1998) 183
Luo, Y., see Magnuson, M. 237 (1998) 295

MacDonald, M.A., see Baltzer, P. 237 (1998) 451
Magnuson, M., L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman, The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies 237 (1998) 295
Maron, L. and C. Teichteil, On the accuracy of averaged relativistic shape-consistent pseudopotentials 237 (1998) 105
Marston, G., see Gingell, J.M. 237 (1998) 443
Mason, N.J., see Gingell, J.M. 237 (1998) 443

Meng, Q., see Xiao, C. 237 (1998) 73
Michel-Beyerle, M.E., see Kummer, A.D. 237 (1998) 183
Minaev, B., see Engström, M. 237 (1998) 149
Mo, Y., see Xiao, C. 237 (1998) 73
Monkman, A.P., see Magnuson, M. 237 (1998) 295
Müller, J., D. Haarer, O.V. Khodykin and B.M. Kharlamov, Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^{4} seconds via transient and photophysical hole burning 237 (1998) 483

Nickel, B. and P.J. Walla, Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxyphenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^{3}K^{*} \rightarrow {}^{1}E$ and $^{1}E \rightarrow {}^{1}K^{*}$ 237 (1998) 371
Nieuwpoort, W.C., see de Graaf, C. 237 (1998) 59
Nordgren, J., see Magnuson, M. 237 (1998) 295

Ortica, F., see Romani, A. 237 (1998) 413

Pauls, S.W., J.F. Hedstrom and C.K. Johnson, Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay 237 (1998) 205
Petelenz, P., see Eilmes, A. 237 (1998) 67
Poizat, O., see Didierjean, C. 237 (1998) 169
Pöllinger-Dammer, F., see Kummer, A.D. 237 (1998) 183

Raimondi, M., see Bodo, E. 237 (1998) 315
Romani, A., F. Ortica and G. Favaro, Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones 237 (1998) 413
Rurali, R., see Consolati, G. 237 (1998) 493
Rutkowski, K.S., IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point 237 (1998) 403

Salaneck, W.R., see Magnuson, M. 237 (1998) 295
Såthe, C., see Magnuson, M. 237 (1998) 295
Sato, K., N. Ishida, T. Kurakata, A. Iwasaki and S. Tsunashima, Reactions of $C(^{1}D)$ with H_2, HD and D_2: kinetic isotope effect and the CD/CH branching ratio 237 (1998) 195
Schmidt, B., see Korolkov, M.V. 237 (1998) 123
Schriver, A., see Hallou, A. 237 (1998) 251
Schriver-Mazzuoli, L., see Hallou, A. 237 (1998) 251
Siggel, M.R.F., see Gingell, J.M. 237 (1998) 443
Silva, C.M., see Kummer, A.D. 237 (1998) 183
Sironi, M., see Bodo, E. 237 (1998) 315
Smirnov, K.S., see Ermoshin, V.A. 237 (1998) 333
Song, J.-B. and E.A. Gislason, Theoretical study of the effect of reagent rotation and vibration on the reactions of $Cl + H_2$ and Cl + HD 237 (1998) 159
Stampor, W., see Kalinowski, J. 237 (1998) 233
Stefanetti, M., see Consolati, G. 237 (1998) 493
Storm, V., H. Dreizler and D. Consalvo, Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers 237 (1998) 395

Teichteil, C., see Maron, L. 237 (1998) 105
Tsunashima, S., see Sato, K. 237 (1998) 195

Vahtras, O., see Engström, M. 237 (1998) 149
Vandenbroucke, D., see Gilliams, B. 237 (1998) 91

Walla, P.J., see Nickel, B. 237 (1998) 371
Wan, M., see Xiao, C. 237 (1998) 73
Wang, L., A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction 237 (1998) 305
Wannberg, B., see Baltzer, P. 237 (1998) 451
Wasylyshyn, D.A. and G.P. Johari, Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth 237 (1998) 345
Watanabe, H. and T. Asada, Hybrid procedure of the ab initio molecular orbital (MO) method and the Monte Carlo samplings; application to cluster $B^+(H_2O)$ 237 (1998) 81
Weitzel, K.-M., Ab initio study of the equilibrium conformation of the $ArCO^+$ ion 237 (1998) 43

Xiao, C., K. Feng, Y. Mo, Q. Meng, M. Zhang, M. Wan and J. Zhao, The electronic structure and Raman spectroscopy of the first purely organic ferromagnet: β para-nitrophenyl nitronyl nitroxide 237 (1998) 73

Yang, L., see Magnuson, M. 237 (1998) 295
Yang, M.M., see Kummer, A.D. 237 (1998) 183
Youvan, D.C., see Kummer, A.D. 237 (1998) 183
Yu, Z., see Huang, W. 237 (1998) 223

Zhang, M., see Xiao, C. 237 (1998) 73
Zhang, Y., see Huang, W. 237 (1998) 223
Zhao, H., see Gingell, J.M. 237 (1998) 443
Zhao, J., see Xiao, C. 237 (1998) 73

ELSEVIER

Chemical Physics 237 (1998) 507–519

Chemical Physics

Subject index to volume 237

Methods and constructs

Theoretical

Computational methods for electronic structure

The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1
Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter, L. Holmlid 237 (1998) 11
Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl, G. Fronzoni and P. Decleva 237 (1998) 21
Compete basis set ab initio study of monocomplexation of aluminum with H_2O, NH_3, and HF, B.S. Jursic 237 (1998) 51
Model calculations of local exciton levels in the C_{60} fullerene crystals doped with endohedral fullerides $M@C_{60}$, A. Eilmes and P. Petelenz 237 (1998) 67
The electronic structure and Raman spectroscopy of the first purely organic ferromagnet: β para-nitrophenyl nitronyl nitroxide, C. Xiao, K. Feng, Y. Mo, Q. Meng, M. Zhang, M. Wan and J. Zhao 237 (1998) 73
Hybrid procedure of the ab initio molecular orbital (MO) method and the Monte Carlo samplings; application to cluster $B^+(H_2O)$, H. Watanabe and T. Asada 237 (1998) 81
Correlation corrected energy bands of nucleotide base stacks, F. Bogár and J. Ladik 237 (1998) 273

-CI and valence bond approach

Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl, G. Fronzoni and P. Decleva 237 (1998) 21
Ab initio study of the equilibrium conformation of the $ArCO^+$ ion, K.-M. Weitzel 237 (1998) 43
Compete basis set ab initio study of monocomplexation of aluminum with H_2O, NH_3, and HF, B.S. Jursic 237 (1998) 51
Theoretical study of the crystal field excitations in CoO, C. de Graaf, W.A. de Jong, R. Broer and W.C. Nieuwpoort 237 (1998) 59
Charge transfer recombination of Si^{2+} ions from atomic hydrogen, M.C. Bacchus-Montabonel 237 (1998) 245
Matrix photochemistry of nitrosyl chloride. Interconversion of ClNO and ClON species by irradiation and tunneling effect, A. Hallou, L. Schriver-Mazzuoli, A. Schriver and P. Chaquin 237 (1998) 251

PII: S0301-0104(98)00347-4

-perturbative and many body approaches
Theoretical study of the crystal field excitations in CoO, C. de Graaf, W.A. de Jong, R. Broer and W.C. Nieuwpoort 237 (1998) 59

-density functional theory
Model calculations of local exciton levels in the C_{60} fullerene crystals doped with endohedral fullerides M@C_{60}, A. Eilmes and P. Petelenz 237 (1998) 67
Infrared spectra and theoretical calculations of HCl complexed with NO, L. Krim and M.E. Alikhani 237 (1998) 265

Semiempirical methods
Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model, B. Gilliams, D. Vandenbroucke and C. Görller-Walrand 237 (1998) 91
Structure of the Van der Waals rare gas–C_{60} exohedral complexes $[(C_{60})(RG)_n; n = 1, 2]$, S. Iglesias-Groth, J. Breton and C. Girardet 237 (1998) 285

Relativistic electronic structure theory
Theoretical study of the crystal field excitations in CoO, C. de Graaf, W.A. de Jong, R. Broer and W.C. Nieuwpoort 237 (1998) 59
On the accuracy of averaged relativistic shape-consistent pseudopotentials, L. Maron and C. Teichteil 237 (1998) 105

Wavefunctions for highly excited and unbound states
Vibrationally state-selective laser pulse control of electronic branching in OH ($X^2\Pi/A^2\Sigma^+$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123

Spin states and magnetic interactions
The electronic structure and Raman spectroscopy of the first purely organic ferromagnet: β para-nitrophenyl nitronyl nitroxide, C. Xiao, K. Feng, Y. Mo, Q. Meng, M. Zhang, M. Wan and J. Zhao 237 (1998) 73

Molecular response to external fields (incl. optical susceptibilities, dichroism, hyperpolarizabilities)
Linear response calculations of electronic *g*-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state, M. Engström, B. Minaev, O. Vahtras and H. Ågren 237 (1998) 149

Radiative (incl. relativistic) effects on molecules and molecular processes
Vibrationally state-selective laser pulse control of electronic branching in OH ($X^2\Pi/A^2\Sigma^+$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123

Scattering of waves and particles
Theoretical study of the effect of reagent rotation and vibration on the reactions of Cl + H_2 and Cl + HD, J.-B. Song and E.A. Gislason 237 (1998) 159
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295

Collisional and reactive molecular dynamics with non-frictional forces
Theoretical study of the effect of reagent rotation and vibration on the reactions of $Cl + H_2$ and $Cl + HD$, J.-B. Song and E.A. Gislason 237 (1998) 159
Charge transfer recombination of Si^{2+} ions from atomic hydrogen, M.C. Bacchus-Montabonel 237 (1998) 245
A rigorous quantum molecular dynamics study of a collinear $A + BC \rightarrow AB + C$ reaction, L. Wang 237 (1998) 305
Interaction anisotropy and quantum dynamics for vibrationally inelastic collisions of $LiH(^1\Sigma)$ with $He(^1S)$, E. Bodo, E. Buonomo, F.A. Gianturco, S. Kumar, A. Famulari, M. Raimondi and M. Sironi 237 (1998) 315

Molecular dynamics of many particle systems and condensed phases
The energy relaxation of Si–H vibration in the H/Si(111) system. Relaxation rate and potential energy surface anharmonicity, V.A. Ermoshin, A.K. Kazansky, K.S. Smirnov and D. Bougeard 237 (1998) 333
Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth, D.A. Wasylyshyn and G.P. Johari 237 (1998) 345

Migration and interaction on grids and lattices
Transport kinetics of triplet excitation in solid chrysene, S.A. Bagnich 237 (1998) 359

Statistical computational methods (incl. Monte Carlo)
Hybrid procedure of the ab initio molecular orbital (MO) method and the Monte Carlo samplings; application to cluster $B^+(H_2O)$, H. Watanabe and T. Asada 237 (1998) 81

Experiment

Magnetic resonances
Linear response calculations of electronic *g*-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state, M. Engström, B. Minaev, O. Vahtras and H. Ågren 237 (1998) 149

Molecular spectroscopy
The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis, C. Didierjean, V. De Waele, G. Buntinx and O. Poizat 237 (1998) 169
Correlation corrected energy bands of nucleotide base stacks, F. Bogár and J. Ladik 237 (1998) 273
Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth, D.A. Wasylyshyn and G.P. Johari 237 (1998) 345
Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxy-phenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^3K^* \rightarrow {}^1E$ and $^1E \rightarrow {}^1K^*$, B. Nickel and P.J. Walla 237 (1998) 371

-microwave
Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers, V. Storm, H. Dreizler and D. Consalvo 237 (1998) 395

-infrared
Matrix photochemistry of nitrosyl chloride. Interconversion of ClNO and ClON species by irradiation and tunneling effect, A. Hallou, L. Schriver-Mazzuoli, A. Schriver and P. Chaquin 237 (1998) 251
Infrared spectra and theoretical calculations of HCl complexed with NO, L. Krim and M.E. Alikhani 237 (1998) 265
IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point, K.S. Rutkowski 237 (1998) 403

-Raman
The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis, C. Didierjean, V. De Waele, G. Buntinx and O. Poizat 237 (1998) 169

-UV
Correlation corrected energy bands of nucleotide base stacks, F. Bogár and J. Ladik 237 (1998) 273
Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones, A. Romani, F. Ortica and G. Favaro 237 (1998) 413
Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects, A.K. Chibisov and H. Görner 237 (1998) 425
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443

-visible
Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model, B. Gilliams, D. Vandenbroucke and C. Görller-Walrand 237 (1998) 91
Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion, A.D. Kummer, C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan 237 (1998) 183
Transport kinetics of triplet excitation in solid chrysene, S.A. Bagnich 237 (1998) 359
Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones, A. Romani, F. Ortica and G. Favaro 237 (1998) 413
Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects, A.K. Chibisov and H. Görner 237 (1998) 425

Photoelectron and Auger spectroscopy
Dissociative photoionisation of NO_2 up to 26 eV, J.H.D. Eland and L. Karlsson 237 (1998) 139
An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule, P. Baltzer, L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland 237 (1998) 451

X-ray spectroscopy
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295
An X-ray absorption near edge spectroscopy (XANES) study on organochromium complexes at the Cr K-edge, C. Engemann, J. Hormes, A. Longen and K.H. Dötz 237 (1998) 471

Electron impact spectroscopy
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443

Laser induced fluorescence
Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion, A.D. Kummer, C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan 237 (1998) 183
Reactions of $C(^1D)$ with H_2, HD and D_2: kinetic isotope effect and the CD/CH branching ratio, K. Sato, N. Ishida, T. Kurakata, A. Iwasaki and S. Tsunashima 237 (1998) 195
Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay, S.W. Pauls, J.F. Hedstrom and C.K. Johnson 237 (1998) 205

Ultrafast measurements
Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay, S.W. Pauls, J.F. Hedstrom and C.K. Johnson 237 (1998) 205

Nonlinear optics and spectroscopy
Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay, S.W. Pauls, J.F. Hedstrom and C.K. Johnson 237 (1998) 205
Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^4 seconds via transient and photophysical hole burning, J. Müller, D. Haarer, O.V. Khodykin and B.M. Kharlamov 237 (1998) 483

Synchrotron spectroscopies
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443
An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule, P. Baltzer, L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland 237 (1998) 451

Atomic and molecular beam techniques
Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers, V. Storm, H. Dreizler and D. Consalvo 237 (1998) 395
An experimental test on the distribution of positronium lifetimes in polymers, G. Consolati, R. Rurali and M. Stefanetti 237 (1998) 493

Mass spectroscopy
Dissociative photoionisation of NO_2 up to 26 eV, J.H.D. Eland and L. Karlsson 237 (1998) 139
Reactions of solid glycine induced by keV ion irradiation, W. Huang, Z. Yu and Y. Zhang 237 (1998) 223

Radiolysis
Reactions of solid glycine induced by keV ion irradiation, W. Huang, Z. Yu and Y. Zhang 237 (1998) 223

Light scattering
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295

Objects

Bulk systems

Gases
The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1
Linear response calculations of electronic *g*-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state, M. Engström, B. Minaev, O. Vahtras and H. Ågren 237 (1998) 149
Reactions of $C(^1D)$ with H_2, HD and D_2: kinetic isotope effect and the CD/CH branching ratio, K. Sato, N. Ishida, T. Kurakata, A. Iwasaki and S. Tsunashima 237 (1998) 195
Interaction anisotropy and quantum dynamics for vibrationally inelastic collisions of $LiH(^1\Sigma)$ with $He(^1S)$, E. Bodo, E. Buonomo, F.A. Gianturco, S. Kumar, A. Famulari, M. Raimondi and M. Sironi 237 (1998) 315
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443

Supersonic beams
Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers, V. Storm, H. Dreizler and D. Consalvo 237 (1998) 395

Liquid mixtures and solutions
Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model, B. Gilliams, D. Vandenbroucke and C. Görller-Walrand 237 (1998) 91
Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay, S.W. Pauls, J.F. Hedstrom and C.K. Johnson 237 (1998) 205
Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxy-phenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^3K^* \rightarrow {}^1E$ and $^1E \rightarrow {}^1K^*$, B. Nickel and P.J. Walla 237 (1998) 371
IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point, K.S. Rutkowski 237 (1998) 403

Crystals
Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter, L. Holmlid 237 (1998) 11

-neat
Theoretical study of the crystal field excitations in CoO, C. de Graaf, W.A. de Jong, R. Broer and W.C. Nieuwpoort 237 (1998) 59

-mixed
Model calculations of local exciton levels in the C_{60} fullerene crystals doped with endohedral fullerides $M@C_{60}$, A. Eilmes and P. Petelenz 237 (1998) 67
IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point, K.S. Rutkowski 237 (1998) 403

Glasses
Transport kinetics of triplet excitation in solid chrysene, S.A. Bagnich 237 (1998) 359
Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^4 seconds via transient and photophysical hole burning, J. Müller, D. Haarer, O.V. Khodykin and B.M. Kharlamov 237 (1998) 483

Polymers
Photogeneration of charge in solid films of α-sexithiophene, J. Kalinowski, W. Stampor, P. Di Marco and F. Garnier 237 (1998) 233
Correlation corrected energy bands of nucleotide base stacks, F. Bogár and J. Ladik 237 (1998) 273
Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth, D.A. Wasylyshyn and G.P. Johari 237 (1998) 345
An experimental test on the distribution of positronium lifetimes in polymers, G. Consolati, R. Rurali and M. Stefanetti 237 (1998) 493

Thin films
Photogeneration of charge in solid films of α-sexithiophene, J. Kalinowski, W. Stampor, P. Di Marco and F. Garnier 237 (1998) 233

Surfaces
The energy relaxation of Si–H vibration in the H/Si(111) system. Relaxation rate and potential energy surface anharmonicity, V.A. Ermoshin, A.K. Kazansky, K.S. Smirnov and D. Bougeard 237 (1998) 333

Low-dimensional materials
Transport kinetics of triplet excitation in solid chrysene, S.A. Bagnich 237 (1998) 359

Biological systems
Correlation corrected energy bands of nucleotide base stacks, F. Bogár and J. Ladik 237 (1998) 273

Microscopic and mesoscopic systems

Single atoms, molecules and assemblies (incl. biological)
On the accuracy of averaged relativistic shape-consistent pseudopotentials, L. Maron and C. Teichteil 237 (1998) 105
A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction, L. Wang 237 (1998) 305

Molecules (neutral and ionic)
Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl, G. Fronzoni and P. Decleva 237 (1998) 21
Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model, B. Gilliams, D. Vandenbroucke and C. Görller-Walrand 237 (1998) 91

-diatomic
Vibrationally state-selective laser pulse control of electronic branching in OH ($X\,^2\Pi/A\,^2\Sigma^+$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123
Linear response calculations of electronic *g*-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state, M. Engström, B. Minaev, O. Vahtras and H. Ågren 237 (1998) 149
Theoretical study of the effect of reagent rotation and vibration on the reactions of Cl + H_2 and Cl + HD, J.-B. Song and E.A. Gislason 237 (1998) 159
Charge transfer recombination of Si^{2+} ions from atomic hydrogen, M.C. Bacchus-Montabonel 237 (1998) 245
A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction, L. Wang 237 (1998) 305

-small polyatomics
The mechanism of the CH_3O + CO reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1
Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl, G. Fronzoni and P. Decleva 237 (1998) 21
Dissociative photoionisation of NO_2 up to 26 eV, J.H.D. Eland and L. Karlsson 237 (1998) 139
IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point, K.S. Rutkowski 237 (1998) 403
An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule, P. Baltzer, L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland 237 (1998) 451
An X-ray absorption near edge spectroscopy (XANES) study on organochromium complexes at the Cr K-edge, C. Engemann, J. Hormes, A. Longen and K.H. Dötz 237 (1998) 471

-aromatics
The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis, C. Didierjean, V. De Waele, G. Buntinx and O. Poizat 237 (1998) 169
Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxy-phenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^3K^* \rightarrow {}^1E$ and $^1E \rightarrow {}^1K^*$, B. Nickel and P.J. Walla 237 (1998) 371
Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones, A. Romani, F. Ortica and G. Favaro 237 (1998) 413
Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects, A.K. Chibisov and H. Görner 237 (1998) 425
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443

-polymeric and biological
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295

Molecular aggregates
Ab initio study of the equilibrium conformation of the $ArCO^+$ ion, K.-M. Weitzel 237 (1998) 43

-van der Waals molecules
Structure of the Van der Waals rare gas–C_{60} exohedral complexes $[(C_{60})(RG)_n;\ n = 1, 2]$, S. Iglesias-Groth, J. Breton and C. Girardet 237 (1998) 285
Interaction anisotropy and quantum dynamics for vibrationally inelastic collisions of $LiH(^1\Sigma)$ with $He(^1S)$, E. Bodo, E. Buonomo, F.A. Gianturco, S. Kumar, A. Famulari, M. Raimondi and M. Sironi 237 (1998) 315
Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers, V. Storm, H. Dreizler and D. Consalvo 237 (1998) 395

-clusters
Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter, L. Holmlid 237 (1998) 11
Hybrid procedure of the ab initio molecular orbital (MO) method and the Monte Carlo samplings; application to cluster $B^+(H_2O)$, H. Watanabe and T. Asada 237 (1998) 81

-complexes
Compete basis set ab initio study of monocomplexation of aluminum with H_2O, NH_3, and HF, B.S. Jursic 237 (1998) 51
Infrared spectra and theoretical calculations of HCl complexed with NO, L. Krim and M.E. Alikhani 237 (1998) 265

Free radicals (incl. hydronium and muonium)
The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1
The electronic structure and Raman spectroscopy of the first purely organic ferromagnet: β para-nitrophenyl nitronyl nitroxide, C. Xiao, K. Feng, Y. Mo, Q. Meng, M. Zhang, M. Wan and J. Zhao 237 (1998) 73

Ions and charge carriers
Ab initio study of the equilibrium conformation of the $ArCO^+$ ion, K.-M. Weitzel 237 (1998) 43

Proteins
Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion, A.D. Kummer, C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan 237 (1998) 183

Phenomena

Molecular structure
The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1
Ab initio study of the equilibrium conformation of the $ArCO^+$ ion, K.-M. Weitzel 237 (1998) 43
Hybrid procedure of the ab initio molecular orbital (MO) method and the Monte Carlo samplings; application to cluster $B^+(H_2O)$, H. Watanabe and T. Asada 237 (1998) 81
Infrared spectra and theoretical calculations of HCl complexed with NO, L. Krim and M.E. Alikhani 237 (1998) 265
Rotational spectra of the ^{15}N-aniline–X, (X = Ar, Ne) complexes. Structure determination from studies on isotopomers, V. Storm, H. Dreizler and D. Consalvo 237 (1998) 395

Vibrations and rotations of molecules
The mechanism of the $CH_3O + CO$ reaction and the stability of the CH_3OCO radical, J.S. Francisco 237 (1998) 1

Electronic structure and states
Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter, L. Holmlid 237 (1998) 11
Ab-initio CI calculations of the C1s and Cl1s and 2p core excitation spectra of the freon molecules: CCl_4, $CFCl_3$, CF_2Cl_2 and CF_3Cl, G. Fronzoni and P. Decleva 237 (1998) 21
Theoretical study of the crystal field excitations in CoO, C. de Graaf, W.A. de Jong, R. Broer and W.C. Nieuwpoort 237 (1998) 59
Model calculations of local exciton levels in the C_{60} fullerene crystals doped with endohedral fullerides $M@C_{60}$, A. Eilmes and P. Petelenz 237 (1998) 67
Modelling the substitution effects of several rhodium(III) transition metal complexes using the angular overlap model, B. Gilliams, D. Vandenbroucke and C. Görller-Walrand 237 (1998) 91
On the accuracy of averaged relativistic shape-consistent pseudopotentials, L. Maron and C. Teichteil 237 (1998) 105
The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis, C. Didierjean, V. De Waele, G. Buntinx and O. Poizat 237 (1998) 169
The electronic structure of poly(pyridine-2,5-diyl) investigated by soft X-ray absorption and emission spectroscopies, M. Magnuson, L. Yang, J.-H. Guo, C. Såthe, A. Agui, J. Nordgren, Y. Luo, H. Ågren, N. Johansson, W.R. Salaneck, L.E. Horsburgh and A.P. Monkman 237 (1998) 295
On the electronic spectroscopy of benzyl alcohol, J.M. Gingell, G. Marston, N.J. Mason, H. Zhao and M.R.F. Siggel 237 (1998) 443
An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule, P. Baltzer, L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland 237 (1998) 451
An X-ray absorption near edge spectroscopy (XANES) study on organochromium complexes at the Cr K-edge, C. Engemann, J. Hormes, A. Longen and K.H. Dötz 237 (1998) 471

Electric and magnetic properties
The electronic structure and Raman spectroscopy of the first purely organic ferromagnet: β para-nitrophenyl nitronyl nitroxide, C. Xiao, K. Feng, Y. Mo, Q. Meng, M. Zhang, M. Wan and J. Zhao 237 (1998) 73

Spin splittings
Linear response calculations of electronic g-factors and spin-rotational coupling constants for diatomic molecules with a triplet ground state, M. Engström, B. Minaev, O. Vahtras and H. Ågren 237 (1998) 149

Molecular interactions
Structure of the Van der Waals rare gas–C_{60} exohedral complexes [$(C_{60})(RG)_n$; $n = 1, 2$], S. Iglesias-Groth, J. Breton and C. Girardet 237 (1998) 285
Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth, D.A. Wasylyshyn and G.P. Johari 237 (1998) 345
Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^{4} seconds via transient and photophysical hole burning, J. Müller, D. Haarer, O.V. Khodykin and B.M. Kharlamov 237 (1998) 483

Spectral bandshapes and intensities
Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^{4} seconds via transient and photophysical hole burning, J. Müller, D. Haarer, O.V. Khodykin and B.M. Kharlamov 237 (1998) 483

Energy transfer processes
The energy relaxation of Si–H vibration in the H/Si(111) system. Relaxation rate and potential energy surface anharmonicity, V.A. Ermoshin, A.K. Kazansky, K.S. Smirnov and D. Bougeard 237 (1998) 333
Transport kinetics of triplet excitation in solid chrysene, S.A. Bagnich 237 (1998) 359
Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxy-phenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^{3}K^{*} \rightarrow {}^{1}E$ and $^{1}E \rightarrow {}^{1}K^{*}$, B. Nickel and P.J. Walla 237 (1998) 371
IR–IR double-resonance studies of vibrational relaxation of CD_3F in solid and liquid Xe, Kr, Ar solutions near the melting point, K.S. Rutkowski 237 (1998) 403

Molecular photophysical processes
Vibrationally state-selective laser pulse control of electronic branching in OH ($X\,^{2}\Pi/A\,^{2}\Sigma^{+}$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123
Dissociative photoionisation of NO_2 up to 26 eV, J.H.D. Eland and L. Karlsson 237 (1998) 139
Photogeneration of charge in solid films of α-sexithiophene, J. Kalinowski, W. Stampor, P. Di Marco and F. Garnier 237 (1998) 233
Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones, A. Romani, F. Ortica and G. Favaro 237 (1998) 413
An experimental study of the valence shell photoelectron spectrum of the NO_2 molecule, P. Baltzer, L. Karlsson, B. Wannberg, D.M.P. Holland, M.A. MacDonald, M.A. Hayes and J.H.D. Eland 237 (1998) 451
Investigation of spectral diffusion in PMMA on timescales from 10^{-5} to 10^{4} seconds via transient and photophysical hole burning, J. Müller, D. Haarer, O.V. Khodykin and B.M. Kharlamov 237 (1998) 483

Photochemistry
Matrix photochemistry of nitrosyl chloride. Interconversion of ClNO and ClON species by irradiation and tunneling effect, A. Hallou, L. Schriver-Mazzuoli, A. Schriver and P. Chaquin 237 (1998) 251

Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects, A.K. Chibisov and H. Görner 237 (1998) 425

Intramolecular dynamics

-radiationless transitions
Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion, A.D. Kummer, C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan 237 (1998) 183

Luminescence spectra, yields and lifetimes
Proximity effects in the excited state ordering and photophysics of thienyl-pyridyl ketones, A. Romani, F. Ortica and G. Favaro 237 (1998) 413
Complexes of spiropyran-derived merocyanines with metal ions: relaxation kinetics, photochemistry and solvent effects, A.K. Chibisov and H. Görner 237 (1998) 425

Multiphoton phenomena
Vibrationally state-selective laser pulse control of electronic branching in OH ($X\,^2\Pi/A\,^2\Sigma^+$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123

Reactions (incl. dissociation)
Theoretical study of the effect of reagent rotation and vibration on the reactions of $Cl + H_2$ and Cl + HD, J.-B. Song and E.A. Gislason 237 (1998) 159
Reactions of $C(^1D)$ with H_2, HD and D_2: kinetic isotope effect and the CD/CH branching ratio, K. Sato, N. Ishida, T. Kurakata, A. Iwasaki and S. Tsunashima 237 (1998) 195
Reactions of solid glycine induced by keV ion irradiation, W. Huang, Z. Yu and Y. Zhang 237 (1998) 223

-collisional
Vibrationally state-selective laser pulse control of electronic branching in OH ($X\,^2\Pi/A\,^2\Sigma^+$) photoassociation, M.V. Korolkov and B. Schmidt 237 (1998) 123
Theoretical study of the effect of reagent rotation and vibration on the reactions of $Cl + H_2$ and Cl + HD, J.-B. Song and E.A. Gislason 237 (1998) 159
A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction, L. Wang 237 (1998) 305
Interaction anisotropy and quantum dynamics for vibrationally inelastic collisions of $LiH(^1\Sigma)$ with $He(^1S)$, E. Bodo, E. Buonomo, F.A. Gianturco, S. Kumar, A. Famulari, M. Raimondi and M. Sironi 237 (1998) 315

Tunneling
Matrix photochemistry of nitrosyl chloride. Interconversion of ClNO and ClON species by irradiation and tunneling effect, A. Hallou, L. Schriver-Mazzuoli, A. Schriver and P. Chaquin 237 (1998) 251
A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction, L. Wang 237 (1998) 305

Electron transfer
Photogeneration of charge in solid films of α-sexithiophene, J. Kalinowski, W. Stampor, P. Di Marco and F. Garnier 237 (1998) 233

Charge transfer recombination of Si^{2+} ions from atomic hydrogen, M.C. Bacchus-Montabonel 237 (1998) 245

Proton and hydrogen atom transfer

The structure of the lowest excited singlet (S_1) state of 4,4′-bipyridine: a picosecond time-resolved Raman analysis, C. Didierjean, V. De Waele, G. Buntinx and O. Poizat 237 (1998) 169

Dramatic reduction in fluorescence quantum yield in mutants of Green Fluorescent Protein due to fast internal conversion, A.D. Kummer, C. Kompa, H. Lossau, F. Pöllinger-Dammer, M.E. Michel-Beyerle, C.M. Silva, E.J. Bylina, W.J. Coleman, M.M. Yang and D.C. Youvan 237 (1998) 183

A rigorous quantum molecular dynamics study of a collinear A + BC → AB + C reaction, L. Wang 237 (1998) 305

Peculiarity of triplet–triplet energy transfer from 2-(2′-hydroxy-phenyl)benzoxazole to diacetyl. Evidence for radiative keto–enol transitions $^3K^* \rightarrow {}^1E$ and $^1E \rightarrow {}^1K^*$, B. Nickel and P.J. Walla 237 (1998) 371

Positron annihilation

An experimental test on the distribution of positronium lifetimes in polymers, G. Consolati, R. Rurali and M. Stefanetti 237 (1998) 493

Molecular motion (incl. diffusive)

Rotational relaxation of perylene in *n*-alcohols and *n*-alkanes studied by two-photon-induced anisotropy decay, S.W. Pauls, J.F. Hedstrom and C.K. Johnson 237 (1998) 205

Dielectric effects of step-increased pressure on the mass- and diffusion-controlled linear chain and network macromolecules growth, D.A. Wasylyshyn and G.P. Johari 237 (1998) 345

Surface chemical physics

-surface excitations

The energy relaxation of Si–H vibration in the H/Si(111) system. Relaxation rate and potential energy surface anharmonicity, V.A. Ermoshin, A.K. Kazansky, K.S. Smirnov and D. Bougeard 237 (1998) 333

Structure of solids, liquids and glasses

Classical energy calculations with electron correlation of condensed excited states — Rydberg Matter, L. Holmlid 237 (1998) 11